

*Polinices immaculata* (Totten). Two fossil-looking specimens thrown up by dredge in Long Beach channel.

*Alectrion fretensis* (Perkins). I have never collected this species but have seen specimens collected on the north shore of Long Island. It is related to *A. vibex* but is strikingly different being much narrower and less finely sculptured.

*Haminea solitaria* (Say). Long Branch channel, one specimen.

The total number of forms found is 98 or 99, so that one may say that about a hundred species should be procurable within the limits of Greater New York. The most favorable localities were found to be the sand flats between South and Midland Beaches, S. I., the Prince's Bay Section, S. I., Far Rockaway and Long Beaches, including the channels to the north of those bars. These localities represent five distinct habitats: protected sandy beach, sod bank and marsh, quiet mud flats, ocean sandy beach and channel, respectively. Two habitats have been omitted: rocky (protected or oceanic) and eel-grass bed. For instance *Acmaea* should be found on the north shore of Long Id. from Sea Cliff eastward as well as *Chaetopleura apiculata*.

In collecting two factors should be borne in mind, namely, that species are very partial to certain factors in their environment so that one must collect from as many different kinds of surroundings as possible, and second, that the further one goes from the cities or centers of human habitation the more complete and natural will be each habitat.

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#### NOTES ON SNAILS DESTROYING CREEPERS AND THEIR EGGS.

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In the vicinity of Tacoma, Pierce County, Washington, the large land snail<sup>1</sup> is to be found in abundance. So far as I have seen they are strictly confined to the mixed fir and oak woods of our prairie districts, which are practically free from under-

<sup>1</sup>The snails referred to are *Epiphragmophora fidelis* Gray, shells of which were received from Mr. Ralph W. Jackson.—EDITORS.

growth of all kinds. These woods are carpeted with a rather long and handsome green moss, making delightful walking for both snails and human beings alike. The snails live most of the time on the oaks, and I have never seen them on any other kind of tree, although there are several other varieties of deciduous trees, besides the innumerable firs.

The California Creeper (*Certhia familiaris occidentalis*) sometimes unfortunately, often selects the loose rolls of bark on these oaks under which to place their nests. The big snails, during their wanderings over the trunks of the trees, very naturally wander at times into a Creeper nest, but as to this being by accident or design it is impossible to say. At all events the results are the same, as the big shell is sure to break one or more of the eggs, the contents of which it eats. Most often several of the five or six eggs that usually make up a set are left uninjured, but, of course, the parent bird in nearly all cases deserts. At times, however, there are more serious results, in case the bird is incubating. These birds are what oologists term "very close sitters" and often have to be removed by force. On such occasions the bird is apt to hug her treasures until it is too late for her to make her escape, and several times I have found the parent dead in the nest with her broken eggs, the abundance of slime on her feathers giving indisputable circumstantial evidence of how she met her violent end. I know of no other species of bird that is molested by these snails, but to an ardent student of birds' eggs the creepers are more than enough.

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#### PUBLICATIONS RECEIVED.

*Pupillidæ.* By Henry A. Pilsbry. Manual of Conchology, Vols. XXIV-XXVI, 1916-1921. As Dr. Pilsbry states (1916), "The last general work on the group is over forty years old. Meantime the number of genera and species has greatly increased, and taxonomic ideas have changed so radically that the classification and nomenclature . . . bear little resemblance to those of former works." A provisional list of the subfamilies is given (XXIV, p. X), with a few of the leading genera as examples.